DNA SEQUENCES ENCODING PEPTIDE SEQUENCES SPECIFIC FOR THE HEPATIC STAGES OF P. FALCIPARUM BEARING EPITOPES CAPABLE OF STIMULATING THE T LYMPHOCYTES

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The parasites responsible for malaria in man, including in particular Plasmodium falciparum and Plasmodium vivax to mention only the principal ones among them, exhibit different morphologies in the human host and express different antigens as a function of their localization in the organism of the infected host. The morphological and antigenic differences shown by these parasites during their life cycle in man makes it possible to define at least four distinct stages of development.

The very first stage of development of the parasite in man corresponds to the sporozoite form introduced into the blood of the host by bites of insect carriers of the parasite. The second stage corresponds to the passage of the parasite into the liver and to the infection of the hepatic ceils in which the parasites develop to form the hepatic schizonts, which burst to release the hepatic merozoites. The third stage is characterized by the infection of the blood erythrocytes by the asexual forms (merozoites) of the parasite; this erythrocytic form of development of the parasite corresponds to the pathogenic phase of the disease. The fourth stage corresponds to the formation of the sexual forms (or gametocytes) which will become the extracellular gametes in the mosquito.

It is known that very many studies have been undertaken in order to isolate from the strains of parasites infective for a human host polypeptide fractions to provide for the needs of the in vitro diagnosis of malaria by detection of the corresponding antibodies, on the one hand, and to attempt to vaccinate against malaria, on the other.